Abstract

A method of producing a homogenous population of homozygous stem (HS) cells pre-selected for immunotype and/or genotype from donor cells is described herein. The invention relates to methods of using immunohistocompatible HS cells for diagnosis, therapeutic and cosmetic transplantation, and the treatment of various genetic diseases, neurodegenerative diseases, traumatic injuries and cancer. The invention further relates to methods for using histocompatible HS stem cells pre-selected for a non-disease genotype for prophylactic and therapeutic intervention including, but not limited to, therapeutic and cosmetic transplantation, and the treatment of various genetic diseases, neurodegenerative diseases, and cancer. Furthermore, the invention relates to a catalogued transplant depository of HS cells derived from multiple donors, each of the HS cells being homozygous for a unique HLA haplotype, for the purpose of having a constant, reliable, comprehensive supply of immunohistocompatible cells for diagnosis, treatment and/or transplantation.